CONNX Modules Overview

Overview

Legacy, mainframe, and non-relational databases continue to provide mission-critical functionality to organizations competing in the fast-paced, international marketplace of the twenty-first century. Yet in today's dynamic global business climate, leading-edge organizations require access to all their business information — no matter where that information resides. That is why we created CONNX, the most efficient way to access relational, non-relational, and legacy mainframe-based databases throughout your organization, and to integrate them with current and future technology.

CONNX enables you to present all your data to familiar standards-based tools on any platform as if all the data existed in one relational database. This flexibility gives you the freedom to choose the business intelligence and development solutions that are best for your business needs. CONNX can be used for Web application and client/server development, data warehousing, ad hoc reporting, business intelligence, and data migration/integration, to mention just a few of the possibilities.

CONNX At a Glance

Fast
High-speed processing
Fast Joins
Distributed query processing
Asynchronous execution

Functional
Full SQL support
Cross-platform joins
Bidirectional data conversion
Stored procedure execution

Adaptable
Industry standards-based:
    .NET, OLE DB, ODBC, JDBC
Reusable architecture
Universal SQL syntax

Scalable
Enterprise-Ready
Distributed SQL Engine

Secure
Integrated Windows NT logon

Specs

Compliance
ODBC Level 2 Compliant
ODBC 3 51 Driver
JDBC Type 3 Driver
.NET 1.1 Driver

CONNX is Fast

High-Speed Processing: CONNX maximizes performance by evaluating each query and generating an optimal query syntax and execution plan using our proprietary CONNX FTL™ technology (Fast Tuning Logic).

Fast Joins, Fast Throughout: The proprietary CONNX FTL technologies have been turbocharged, resulting in faster multitable joins and an increase in speed when performing searches on non-keyed fields.

Distributed Query Processing: Query processing is distributed between host data servers and clients.

Multithread execution: CONNX supports the ODBC asynchronous execution model and threads for each executed SQL statement. This feature makes it possible to run queries in the background.

CONNX is Scalable

CONNX respects all existing database security and uses 128-bit key encryption. Additional field- and table-level permissions can be organized by group or individual user. Record-level security is supported through CONNX Views. Security permissions can be tied to a single CONNX or integrated Windows NT logon.

CONNX is Secure

Enterprise e-ready: CONNX can handle large amounts of data in many formats. It is easily adaptable to all environments, enabling organizations to scale from project to enterprise; from two-tiered to n-tiered; and from one to many data sources.

Distributed SQL Engine: CONNX Distributed SQL Engine technology takes advantage of the strengths of the database server and the client platform.

CONNX distributes SQL processing between the client and the server according to the SQL capability of the server. If CONNX is communicating to a relational database, CONNX passes the SQL directly to the database. When communicating to a non-relational data source, CONNX uses an efficient internal API to translate SQL processing into the native database file i/o commands.

The CONNX Distributed SQL Engine provides a highly scalable solution. For example, if you develop a Web application and you have a Web farm or cluster, CONNX can take advantage of the additional processing power available as the number of the nodes of the cluster scale up. This helps reduce the possibility that the database server becomes the bottleneck, which would occur if all of the processing occurred on the database server.

CONNX is Functional

Full SQL Support: CONNX fully supports ODBC SQL (INSERT, UPDATE, SELECT, and DELETE). It also supports SQL String and Date functions and statistical functions, as well as the relational operators, unions, intersections, and the family of join operators.

CONNX Modules Overview

Specs

Compatibility

CONNX is fully interoperable with thousands of OLE DB, ODBC, JDBC, and .NET compliant applications

Including:

- ♦ Microsoft Office (Access, Word, Excel, and MS Query)
- ♦ Crystal Reports
- ♦ Cognos Impromptu
- ♦ Decision Stream
- ♦ Developer,
- ♦ Microsoft Internet Information Server
- ♦ Business Objects
- ♦ Microsoft Studio (VB, VC++, InterDev)
- ♦ PowerBuilder
- ♦ Delphi
- ♦ Lotus Approach
- ♦ Others

Fully compatible with Microsoft Hose Integration Server (HIS) and Data Transformation Services (DTS)

Client Platforms

- ♦ Windows 2000/XP/2003/Vista/2008
- ♦ Any Java-compliant client platform

Server Platforms

- ♦ VMS
- ♦ Windows 2000/XP/2003/Vista/2008
- ♦ IBM OS/390
- ♦ IBM AS/400
- ♦ IBM OS/2
- ♦ IBM VSE
- ♦ IBM z/OS
- ♦ Unix
- ♦ Linux
- ♦ z/Linux
- ♦ AIX
- ♦ SCO
- ♦ Solaris
- ♦ HP-UX

Cross Platform Joins: With a single SQL statement, CONNX allows your applications to join related data across systems as if all data existed in one relational database. Distributed joins allow CONNX to return only the necessary information.

Business Views: CONNX supports the creation of data views across and within data sources, allowing related data from different sources to appear as one logical table and enabling the simplification of complex structures.

Bidirectional Data Conversion: CONNX supports all relational data types, including BLOBs and CLOBs, and quickly performs bidirectional data format conversion for update and retrieval.

Remote Command Execution: CONNX provides an RPC (Remote Procedure Call) mechanism that allows remote execution of batch jobs, command procedures, and applications on the host systems.

Stored Procedure Execution: CONNX provides a mechanism that allows remote execution of stored procedures contained in the target databases.

CONNX is Adaptable

Industry Standards-Based: CONNX supports industry access standards, including SQL, ODBC, ADO/OLE DB, .NET, and JDBC.

Reusable Architecture: With CONNX, a single metadata model can be created, spanning all enterprise data sources and applications requiring data access.

Universal SQL Syntax: CONNX insulates applications from database differences by providing a common SQL grammar that transparently compensates for any limitations or differences.

Insulation from Change: CONNX provides a standardized interface to business data regardless of changes in the underlying databases or structures. An example of this is our ability to offer .NET functionality to existing customers.

CONNX is Easy to Use

Network Database Technology: CONNX has a unique technology that facilitates easy access of network database models using standard SQL.

Occurs Clauses and Arrays: The CONNX unique rotated array technology makes manipulation of large arrays simple by representing variable and fixed-length arrays in a relational structure.

CONNX Components

CONNX OLE DB Provider: Specifically designed to work with Microsoft .NET, users get the performance of a native provider, while writing their own applications in managed c# or VB .NET code.

CONNX ODBC Client: The client is based on an ODBC driver, a dynamic link library that applications call to access data located in remote systems.

CONNX Data Server: The servers for relational databases are full-featured data servers resident on the PC client that translate SQL requests into native database requests.

CONNX Data Dictionary (CDD): The Data Dictionary is a repository of information about the database tables and fields.

CONNX JDBC Server: The JDBC Server is a Windows server component that communicates with the JDBC Driver.

CONNX JDBC Thin Client: The JDBC Thin Client (Driver) communicates with the JDBC Server through the use of a socket.